

Claims

- 1. Magnetic particles with an outer surface made of glass that contains boroxide.
- 2. Particles according to claim 1, characterized in that the glass surface is substantially pore-free or has pores with a diameter of less than 10 nm.
- 3. Particles according to claim 1 or 2, characterized in that they have a particle size of between 10 and 60 μm.
- 4. Particles according to claim 1 or 2, characterized in that any pores contained in the surface have a diameter of less than 1 nm.
- 5. Particles according to claim 1 or 2, characterized in that the particles contain a composite material with a mica core and magnetite particles immobilized on it, the composite material being embedded in a glass layer.
- 6. Procedure for isolating a biological material comprising
 - Bringing a sample that contains the biological material in a fluid in contact with particles according to one of the claims 1 through 15 under conditions in which the biological material binds directly to the glass surface, and
 - Separating the biological material from the fluid.
- 7. Procedure according to claim 6, characterized in that the biological material is a nucleic acid.
- 8. Procedure according to claim 6 or 7, characterized in that the magnetic particles are not premagnetized when brought in contact with the sample.
- 9. Procedure for isolating nucleic acids comprising

- Bringing a sample that contains the nucleic acids in native form in a fluid in contact with magnetic particles having glass surfaces that are substantially pore-free or that have pores with a diameter of less than 10 nm under conditions in which the nucleic acids in their native form can bind directly to the glass surface, and
- Separating the bound nucleic acids from the fluid.
- 10. Procedure based on claim 9, characterized in that the magnetic particles are not premagnetized when brought in contact with the sample.
- 11. Procedure for manufacturing magnetic glass particles with a particle size of between 10 and 60 μm by
 - Providing a magnetic core and
 - Enclosing the magnetic core in a substantially pore-free glass surface by
 - Depositing a sol formed of an alcohol solution containing alkoxides of network-forming components on the surface,
 - Transforming the sol layer into a gel layer by means of a spray drying procedure, and then
 - Densifying the gel.
- 12. Application of ferromagnetic particles having an outer glass surface that is substantially pore-free or has pores with a diameter of less than 10 nm for isolating nucleic acids in native form.

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